

## VAMP2-S8MDA Series

### **2U Multi-Format Video and Multi-Channel Audio Monitor**

with Two SDI and Two CVBS Video Inputs,  
One (HD)-SDI input and Loop-Throughs,  
SDI/AES/Analog Audio Inputs w/ Loop-Through,  
Analog Stereo Outputs of Selected Source, Flexible  
VPOD LCD Display, and Eight 26-Segment Level Meters

Document P/N **821567** Rev-97

## User Manual

### CONTENTS

<u>Title and Contents</u> .....	1
Introduction and Warranty.....	2
<u>Section 1: General Features and Specifications</u> .....	3
Description and Features .....	4
Applications and Specifications .....	5
<u>Section 2: Operation</u> .....	7
Installation .....	9
Front Panel Features .....	10
Rear Panel Features .....	16

## Introduction

Congratulations on your selection of a PANORAMAdtv **VAMP2-S8MDA Series** multi-format audio/video monitor unit. We are confident it represents the best performance and value available, and we guarantee your satisfaction with it.

If you have questions or comments you may contact us at:

**PANORAMAdtv**  
711 Grandview Drive  
South San Francisco, CA 94080  
650 589-5676 Fax: 650 589-1355  
web: [www.panoramadtiv.com](http://www.panoramadtiv.com)  
e-mail: [sales@panoramadtiv.com](mailto:sales@panoramadtiv.com)

All rights reserved. Copyright held by PANORAMAdtv.

## Warranty for PANORAMAdtv Products

Subject to the provisions described below, this **PANORAMAdtv** product is protected for one (1) year against defects in material and workmanship.

Should a product fail to perform as described above within the warranted period, it will be repaired or replaced, free of charge, with the same or functionally equivalent product by Panorama DTV. Repaired or replacement products will be returned to you with shipping charges prepaid.

This warranty does not apply if, in the judgment of **PANORAMAdtv**, the product fails due to damage from shipment, handling, storage, accident, abuse or misuse, or if it has been used or maintained in a manner not conforming to product manual instructions, has been modified in any way, or has had a serial number removed or defaced. Cracked, scratched or broken LCD's are also not covered by warranty. Repair by anyone other than **PANORAMAdtv** or by an approved agent will void this warranty.

Defective pixels in LCD panel monitors are not a warranty issue unless they meet the criteria prescribed in panel manufacturer's specifications for pixel defects. Warranted pixel defects are described as: three (3) pixels dark or bright adjacent to each other, or five (5) pixels dark or bright anywhere on the screen.

Prior to returning any defective product, the customer or the reseller from whom the customer originally purchased the product must obtain a **Return Materials Authorization (RMA)** number from **PANORAMAdtv**. All defective products should be returned to **PANORAMAdtv** with shipping charges prepaid.

# Section 1

## General Features and Specifications

**Description**

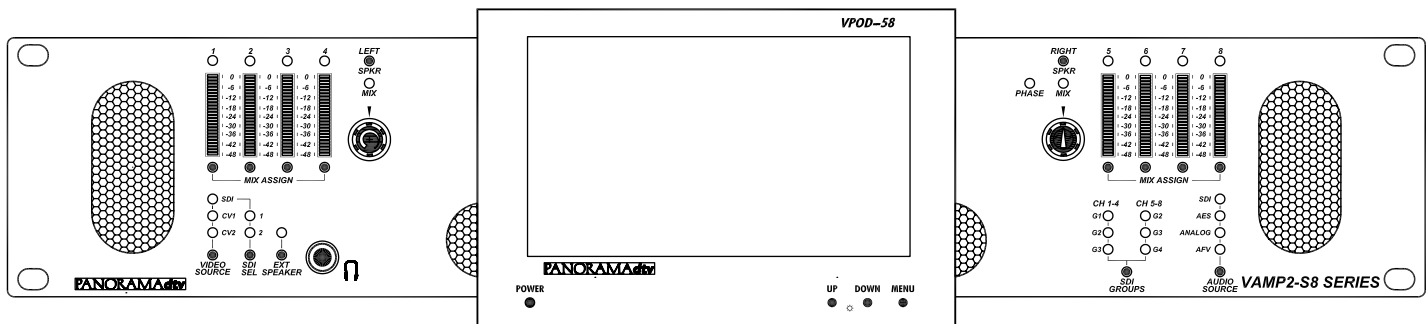
**Features**

**Applications**

**Specifications**

## VAMP2-S8MDA Series

### *2U Multi-Format Video and Multi-Channel Audio Monitor*



VAMP2-S8MDA Series Front Panel with 5W VPOD Video Display

## Description

The **VAMP2-S8MDA Series** monitoring products are a complete, exceptionally high quality SDI/AES/CVBS stereo video/audio monitoring solution available in compact two rackspace cabinets. There are numerous input and output features that make these units ideal for facility-wide monitoring of analog/digital audio and video signals.

This **VAMP2-S8MDA Series** models offer a solution to the common problem of poor off-axis viewing angle of LCD video display monitors; the LCD video display screen resides in a separate module which is mounted to the front panel by a length of flexible goose-neck tubing. The display is manually adjusted for viewing angle separately from the fixed position of the rack-mounted front panel thus allowing the operator to position the video display for an optimal angle for view. A choice of two wide format display sizes are available; either 5.8' or 7". Both are selectable for a 4:3 or 16:9 display aspect ratio.

The unit is capable of monitoring SDI, AES, and Analog audio signals in conjunction with HD-SDI, SDI, and CVBS video signals. In "Mix Mode" the individual input channels may be separately selected to be monitored through the left and/or right speakers. Color coded LEDs above each level meter bargraph display indicate which channels are selected for monitoring to which speaker they are assigned. Audio phase relationships are indicated by a bi-color (RED/GREEN) LED on the front panel. Audio input selection status is indicated by LEDs in close proximity to the selection buttons. Two of four SDI sub-groups are selectable via a front panel button when monitoring digital SDI audio signals.

Eight high-resolution 26-segment LED bargraph level meters exhibit simultaneous VU and PPM display characteristics to provide wide-range visual monitoring of audio signals. Meters are tri-color (red/amber/green) and have a dynamic range of 48 dB.

Other features include internal/external speaker selection, video outputs of CVBS on BNC connector, selectable AES input termination via rear panel DIP switches, metered analog audio output on a DB-25 connector, selected analog audio stereo output on two XLR connectors, automatic sensing and configuration of NTSC or PAL video formats, and a headphone output jack.

## Features

- 2U rack space height: highest fidelity in minimum rackspace
- Choice of 5.8" or 7" video monitor screen sizes; 4:3 and 16:9 aspect ratio selectable
- Fully adjustable LCD video pod mounted on flexible gooseneck on front panel slides in and out and may be adjusted +/- 60 degrees in any direction.
- Autosensing of NTSC and PAL video formats
- Eight 26-segment tri-color LED bargraph level meters displaying simultaneous VU and PPM characteristics
- Two HD-SDI (or SD-SDI) and two CVBS video inputs with loop-through outputs
- SDI down conversion lock status LED
- Converts SDI to analog composite (CVBS) video
- Monitors and converts eight audio channels and one video channel simultaneously
- Converts SDI embedded audio to AES and/or analog audio outputs
- Flexible assignment of source signals to left and right speakers with indication LEDs
- Audio source selection of SDI, AES, Analog, and AFV (Audio Follows Video) source signals
- Select two of four SDI groups (8 channels) for monitoring
- LED indication of selection and mix settings
- Analog outputs of selected source on two XLR connectors
- External speaker connections (no external amp required)
- Headphone output
- Auxillary Analog or AES audio inputs may be monitored separately or in conjunction with the video inputs

## Applications

The **VAMP2-S8MDA Series** is ideally suited to provide high quality multi-channel digital and analog audio and video monitoring in a very compact form factor. Ideal for use in VTR bays, mobile production vehicles, teleconferencing installations, multimedia systems, satellite links, cable TV facilities, and on-air radio studios. Designed and manufactured in the U.S.A., the **VAMP2-S8MDA Series** is backed by a strong warranty and a satisfaction guaranteed return policy.

## General Specifications

<b>Analog Input Impedance:</b>	27K $\Omega$ balanced, minimum	<b>Hum and Noise, Analog:</b>	Better than -68 dB below full output
<b>AES Input Configuration:</b>	110 $\Omega$ balanced, 75 $\Omega$ unbalanced	<b>Power Output, High Frequency:</b>	6 W RMS
<b>AES Termination:</b>	DIP switch selectable on rear panel	<b>Low Frequency:</b>	14 W RMS
<b>Analog Input Overload:</b>	+24 dBu balanced	<b>Converted Analog Out THD:</b>	< 0.008%
<b>Analog Reference:</b>	+8, +6, +4, or 0 dBu	<b>Magnetic Shielding:</b>	Less than 1 Gauss any adjacent surface
<b>Digital Reference:</b>	-20, -18, or -9 dBFS	<b>Input Connectors:</b>	<b>AES:</b> BNC <b>HD-SDI, SD-SDI:</b> BNC <b>Analog:</b> D-SUB 25 ("Tascam" pinout on all D-sub connectors)
<b>Meter Dynamics:</b>	VU and PPM	<b>Power Consumption (less than):</b>	70 W
<b>AES Input Sampling Rate:</b>	32-48 KHz, auto-select	<b>AC Mains Input:</b>	100-240 VAC, 50-60 Hz
<b>D to A Converter:</b>	24-bit low jitter	<b>Chassis Dimensions (H x W x D):</b>	3.5 x 19 x 12.5 inches 89 x 483 x 317.5 mm  14 inches (355.6 mm) depth including controls/knobs
<b>Peak Acoustic Output: (@ 2 ft.)</b>	<b>2U:</b> 104 dB SPL	<b>Weight:</b>	12 lbs. (5.5 kg)
<b>Acoustic Distortion:</b>	6% or less at worst case frequencies above 140 Hz including cabinet resonance; typically less than 1.5%		
<b>Response, Sixth Octave:</b>	80Hz – 18 KHz +/- 5 dB (-10 dB @ 55 Hz, 21 kHz)		
<b>Distortion, Electrical:</b>	> 0.15% at any level below limit threshold		

## VPOD Display Specifications

VPOD Video Specs:	VPOD 5W	VPOD 7W
<b>Screen Size (diagonal inches):</b>	<b>5.8"</b>	<b>7"</b>
<b>Active Area (H x V, mm):</b>	127.2 x 71.838	154.1 x 88.6
<b>LCD Aspect Ratio:</b>	16:9	16:9
<b>Resolution (dots x lines):</b>	1200 x 234	1440 x 234
<b>Dot Pitch (mm):</b>	0.106 x 0.307	0.107 x 0.370
<b>Contrast Ratio:</b>	150 : 1	150 : 1
<b>Brightness (NITs):</b>	400	400
<b>Viewing Angle (top/bottom/left/right):</b>	30°/60°/60°/60°	60°/30°/60°/60°
<b>Weight (VPOD module w/mount):</b>	1.25 lbs.	1.4 lbs.
<b>Power Consumption (Watts, VPOD):</b>	7W	10W
<b>Height x Width x Depth (inches):</b>	<b>4.23 x 6.4 x 1.22</b>	<b>4.93 x 7.4 x 1.22</b>



## Section 2

### Operation

#### Installation

#### Front Panel Features

#### Rear Panel Features

(This page left intentionally blank)



## Installation

### Unpacking

Unpack the **VAMP2-S8** unit from the shipping container and inspect all articles for shipping damage. If you find any damage, notify the shipping carrier immediately for claims adjustments.

Compare the shipping box contents to the packing slip. Contact a Panorama sales representative if there are any unexplained shortages.

### Power Requirements

The **VAMP2-S8** unit is equipped with a world standard power supply that is capable of operating on 100-240 VAC @ 50-60 Hz. Power consumption is 70 watts, maximum.

### Cooling and Airflow

It is recommended that you allow a 1RU (1.75"/25mm) space above and below the unit for air circulation.

### Rack Mounting

The **VAMP2-S8** unit rack mounts in a standard EIA-310-D specification 19"/483mm rack and needs 2RU (3.5"/88.9mm) of space. (See Figure-2a, facing page, for unit dimensions.) Allow sufficient space at the unit rear for connector and cable clearance (approximately 4"/102 mm). The **VAMP2-S8** unit weighs 12 pounds (5.5 kg) and rack mounts from the front panel support rails. Rear support is not required.

**LCD Monitor Viewing Position:** Good image quality is assured if the video display is positioned so that viewing angles are between +/- 45 degrees from the center axis in the horizontal plane (left/right). In the vertical axis, good image quality is obtained between 10 degrees looking down and 30 degrees looking up. Due to the nature of LCD's, there are certain anomalies, which can cause the displayed video to appear incorrect. If the viewer is outside the optimal LCD display viewing range, the contrast ratio, brightness, and color saturation will not be or may not appear to be, a true representation of the displayed video. Additional anomalies such as loss of resolution, apparent reversed video effect, and frame/field strobe effect with the CCFT backlight may also be observed. The LCD used in the **VAMP2-S8** is optimized for viewing from the 12 o'clock position relative to the plane of the video display screen. Typically, the unit is mounted at eye height so that the display may be adjusted and viewed by looking straight into it. Going beyond the specified viewing area can cause anomalies as mentioned above.

**NOTE:** In PAL mode operation, the LCD driver discards every seventh line of active video so an entire video frame fits within the display screen. This is normal with most LCD's currently on the market.

### General Installation Recommendations

Recommended cable type for **analog video** signals is: **Belden 8281, Belden 1694A**, or equivalent.

Recommended cable type for **digital video** signals is: **Belden 1694A** or equivalent.

Recommended cable type for **analog audio** signals is: **Belden 9451** or equivalent.

Recommended cable type for **digital audio** signals is: **Belden 1800B** or equivalent.

**Static Discharge:** As with most electronic equipment, static discharges can damage components within the unit. Take precautions to ensure your installation environment is not subject to static discharges.

## Front Panel Features

Please refer to **Figure-2a** on the following page to familiarize yourself with the front panel features of the **VAMP2-S8MDA Series** unit. The following sections describe these functions and are referenced, by number, to **Figure-2b**.

Note that **Figure-2a** shows only the **5W VPOD** module. See **Figure-2b** on page **14** for features of both available VPOD modules.

### 1 Speakers (Left and Right)

The **VAMP2-S8** internal speaker system is comprised of two high-range and two low-range speakers (left and right).

### 2 Video Source Select Button and Indication LED

This button (**VIDEO SOURCE**) is used to select a signal source for monitoring. There are three selections:

- 1) **SDI**
- 2) **CV1** (CVBS 1)
- 3) **CV2** (CVBS 2)

Repeated pressing of the **Source Select Button** will step through each of the three selections. One of the three indication LEDs will glow GREEN to indicate which signal source is selected for monitoring (**SDI**, **CV1**, or **CV2**).

When **SDI** is selected, one of the two available **SDI** inputs on the rear panel (**Item B**, Page **18**) is selected for monitoring using the **SDI Input Select Button** (**Item 3**). When **CV1** or **CV2** is selected, one of the two corresponding **CVBS** inputs on the rear panel (**Item D**, page **18**) is selected for monitoring. See the **Audio Source Select Button** (**Item 10**, page **12**) for information about selection of audio inputs for video monitoring.

### 3 SDI Input Select Button and Indication LEDs

This button (**SDI SEL**) toggles the selection between the two **SDI** inputs (**SDI IN1** or **SDI IN2**) when the **Video Source Select Button** (**Item 2**) is set to **SDI** *or* the **Audio Source Select Button** (**Item 10**, page **12**) is set to **SDI**. The appropriate indication LED (**1** or **2**) will glow GREEN to indicate which **SDI** input is selected (**SDI IN1** or **SDI IN2**).

### 4 Speaker Select Button (Internal/External) and Indication LED

When external speakers are connected to the **External Speaker Connectors** on the rear panel (**Item Q**, Page **21**), this toggle button selects which speakers (**Internal** or **External**) will monitor the selected audio channels. When the **Internal** speakers are selected for monitoring, the LED will *not* be lit. When the **External** speakers are selected, the LED will glow GREEN.

### 5 Headphone Jack

Select the headphone audio sources as you would for the internal speakers. When you plug in headphones, the internal speakers will mute. This jack accepts a standard 1/4" stereo (ring/tip/sleeve) plug.

### 6 Volume Control

This controls the loudness of the audio reproduced by the internal speakers or connected headphone. Clock-wise rotation of this control increases the loudness of the monitored audio.

### 7 VPOD LCD Video Display Module

The **VPOD** module houses the LCD video display screen, on-screen display controls, Tally LED, and Power LED. See **Items 7a to 7e**, page **14** for a description of **VPOD** module features. The **VPOD** module is attached to the **VAMP2-S8MDA** front panel by a length of flexible gooseneck tubing. This allows the video screen angle to be positioned independantly of the fixed position of the main chassis. There is about a +/- 60 degree field of movement of the **VPOD** from the vertical and horizontal plane of the front panel. When adjusting the angle of the video screen, grasp the **VPOD** module at the right/left or top/bottom sides. Two sizes of LCD video display are available; the 5.8" Widescreen (5W) and 7" Widescreen (7W).

See page **16** for instructions on how to adjust the display parameters using the on-screen display controls.

**CAUTION: Do NOT rotate (twist) the VPOD module around the gooseneck axis;** the torque may damage the gooseneck and/or internal wiring. Also, avoid touching the LCD video screen itself with the fingers or other objects.

### 8 Balance Control

This pans the volume balance between the left and right speakers.

(Continued)

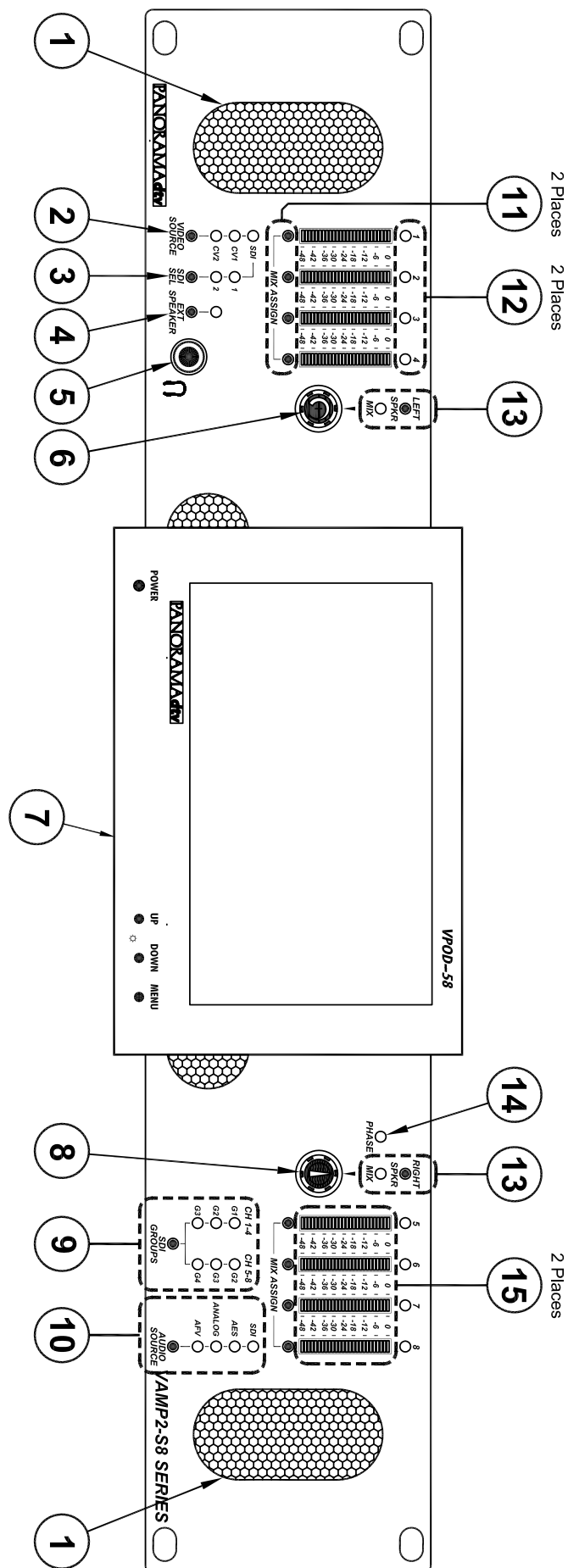


Figure-2a: Front Panel Features

## Front Panel Features

(Continued)

### 9 SDI Group Select Button and LEDs

This button (**SDI GROUPS**) selects which two **SDI Groups** will be assigned for monitoring through the eight level meters when either the **Video Source Select Button (Item 2, page 10)** or **Audio Source Select Button (Item 10)** is set to **SDI**.

**SDI** group selections are indicated by the appropriate LEDs glowing GREEN. When **SDI** is *not* selected, these LEDs will be unlit. When **SDI** is selected, but there is *no* signal entering the selected inputs, the **SDI** group LEDs will turn RED.

The following SDI group assignments are selected with each push of the button.

SDI Group Selections		
Selection Sequence	Channels 1-4 SDI Group	Channels 5-8 SDI Group
1	G1	G2
2	G1	G3
3	G1	G4
4	G2	G3
5	G2	G4
6	G3	G4

### 10 Audio Source Select Button and Indication LEDs

This push button (**AUDIO SOURCE**) is used to step through the four audio sources as follows:

- 1) **SDI** = Monitors the audio as input to the **SDI** inputs on the rear panel (**Item B, page 18**).
- 2) **AES** = Monitors the audio as input to the **AES** inputs on the rear panel (**Item N, page 21**).
- 3) **Analog** = Monitors the audio as input to the **Analog** inputs on the rear panel (**Item F, page 18**).
- 4) **AFV (Audio Follows Video)** = This setting will monitor the *audio* source which is associated with the selected *video* source as shown below in the table.

Video Source	Audio Source
SDI	SDI
CV1	AES
CV2	Analog

### 11 Mix Assign Buttons (1-4 and 5-8)

Each of these eight push buttons (**MIX ASSIGN**) is separately associated with one of each of the eight level meters (**1-8**). Each button is used to assign the channel monitored by the associated level meter to the left or right speaker channel mix *only* when both the left and right **Speaker Assign Buttons** are in "**Mix Mode**" (the 5th pushbutton cycle; See **Item 13, page 13** for more information). When in "**Mix Mode**" the right and/or left **Mix LEDs (Item 13, page 13)** will glow either GREEN (left **Mix LED**) or YELLOW (right **Mix LED**).

When a channel is selected using these buttons, the **Channel LED (Item 12, page 12)** above the associated level meter will glow GREEN when assigned to the left speaker channel, YELLOW when assigned to the right speaker channel, or alternately GREEN/YELLOW if assigned to both speaker channels.

### 12 Channel LEDs (1-4)

These eight LEDs indicate when the associated channel is assigned to one or both speaker channels. When these LEDs glow GREEN the channel is assigned to the LEFT speaker channel, when glowing YELLOW the channel is assigned to the RIGHT speaker channel, and when it glows alternately GREEN and YELLOW then the channel is assigned to both left and right speaker channels. The LEDs are unlit when the channel is *not* assigned to either speaker channel.

(Continued)

## Front Panel Features (Cont.)

(Continued)

### 13 Speaker Assign Buttons and Mix LEDs (Left and Right)

These two buttons (**LEFT SPEAKER** and **RIGHT SPEAKER**) are used to assign any single channel or group of channels (4 maximum) separately to each of the two speaker channels (left and right). When the left and/or right button is pushed a 5th time in it's cycle, its associated **Mix LED** will light up GREEN to indicate that channels may be added to that speaker mix by pushing the **Mix Assign Buttons (Item 3)** located under the **Level Meter Bargraph Displays**. With each push the following will happen:

#### Left Speaker Assign Button:

- 1st push - **Channel 1** LED lights GREEN; signal is assigned to LEFT speaker.
- 2nd push - **Channel 2** LED lights GREEN; signal is assigned to LEFT speaker.
- 3rd push - **Channel 3** LED lights GREEN; signal is assigned to LEFT speaker.
- 4th push - **Channel 4** LED lights GREEN; signal is assigned to LEFT speaker.
- 5th push - **Left Mix LED** lights GREEN; use **Mix Assign Buttons** to assign channels to speaker mix as desired.
- 6th push - Cycles to beginning (same as 1st push).

#### Right Speaker Assign Button:

- 1st push - **Channel 1** LED lights YELLOW; signal is assigned to RIGHT speaker.
- 2nd push - **Channel 2** LED lights YELLOW; signal is assigned to RIGHT speaker.
- 3rd push - **Channel 3** LED lights YELLOW; signal is assigned to RIGHT speaker.
- 4th push - **Channel 4** LED lights YELLOW; signal is assigned to RIGHT speaker.
- 5th push - **Right Mix LED** lights YELLOW; use **Mix Assign Buttons** to assign channels to speaker mix as desired.
- 6th push - Cycles to beginning (same as 1st push).

**Note:** When the same channel is assigned to both LEFT (GREEN LED) and RIGHT (YELLOW LED) speaker channels, the **Channel LED (Item 12, page 12)** for that channel will alternately glow GREEN *and* YELLOW.

### 14 Phase Indication LED

This LED (**PHASE**) indicates the phase status of the audio signals assigned to the speakers. This LED indicates the *average* phase condition by glowing GREEN for *in-phase* conditions, or RED for *out-of-phase* conditions. While it is normal for stereo signals to contain some intermittent instantaneous out-of-phase and in-phase conditions, a steady RED glow of this LED almost always indicates an out-of-phase alarm condition.

### 15 Audio Level Meter LED Bargraph Displays (1-8)

Audio levels are visually displayed via these two banks of eight high-resolution, 26-segment, tri-color (RED/AMBER/GREEN) LED bargraph display meters. There are *eight* level meters labeled **1** through **8** and they correlate to the *eight* channels of the selected source. Dynamic range for these 26-segment meters is -48 dB and they simultaneously display both **VU** and **PPM** ballistic characteristics.

Contact the factory for additional information concerning level meter scales and ballistics.

## Front Panel Features

Please refer to **Figure-2c** on the facing page to familiarize yourself with the front panel features of the **VPOD** LCD display modules that can be specified for the **VAMP2-S8MDA Series** units. The following sections describe these features and are referenced, by number, to **Figure-2c**. See page **10** for front panel features of the main chassis.

### VPOD - LCD Video Display Modules

Each **VPOD** video display module houses the user display controls and is attached to the **VAMP2-S8MDA Series** chassis front by a length of flexible gooseneck tubing. Each **VPOD** module may be adjusted for viewing angle independent of the fixed position of the main chassis. There is about a +/- 60 degree field of movement of the **VPOD** module from the vertical and horizontal plane of the front panel. When adjusting the angle of the video screen, grasp the **VPOD** module at the right/left or top/bottom sides and *bend* in the desired direction.

**CAUTION: Do NOT rotate (twist) the VPOD module around the gooseneck axis; the torque may damage the gooseneck and/or internal wiring. Also, avoid touching the LCD video screen itself with the fingers or other objects.**

#### 7a Power Button (5W VPOD only)

This button switch is used to cycle the **5W** LCD display **ON/OFF**.

#### 7b LCD Video Display

View input video sources here. The **VAMP2-S8MDA/5W** model features a 5.8" LCD video display. The **VAMP2-S8MDA/7W** model features a 7" LCD video display. Each offers a different set of controls which are described within this section.

Note that when no source signal is being input to a powered display, a "**NO SIGNAL**" message will show in the display screen until a source signal is applied.

#### 7c 5W (5.8") LCD On-Screen Display Controls (5W VPOD only)

The **5W** video display properties may be adjusted using these on-screen display controls. See page **16** for instructions on how to adjust these parameters. The following parameters may be adjusted for the **5W** LCD display:

- **Brightness** - adjust for desired screen brightness.
- **Contrast** - adjust for desired image scene, dark-to-bright contrast.
- **Color (Saturation)** - adjust for desired amount of image color saturation.
- **Tint (Hue)** - adjust for desired image color hue (NTSC only).
- **Dimmer Level** - 1 to 8.
- **Power Savings** - **ON/OFF** (turns monitor off if no video signal after 6 seconds, returns power at signal).
- **Frequency Subcarrier** - select **3.58 MHz** or **4.43 MHz** for frequency subcarrier.
- **Horizontal Normal** - reverses image horizontally.
- **Vertical Normal** - reverses image vertically.
- **Mode** - **NORMAL** (original aspect ratio), **ZOOM1** (arbitrary zoom in), or **FIT** (stretches image to fit screen).

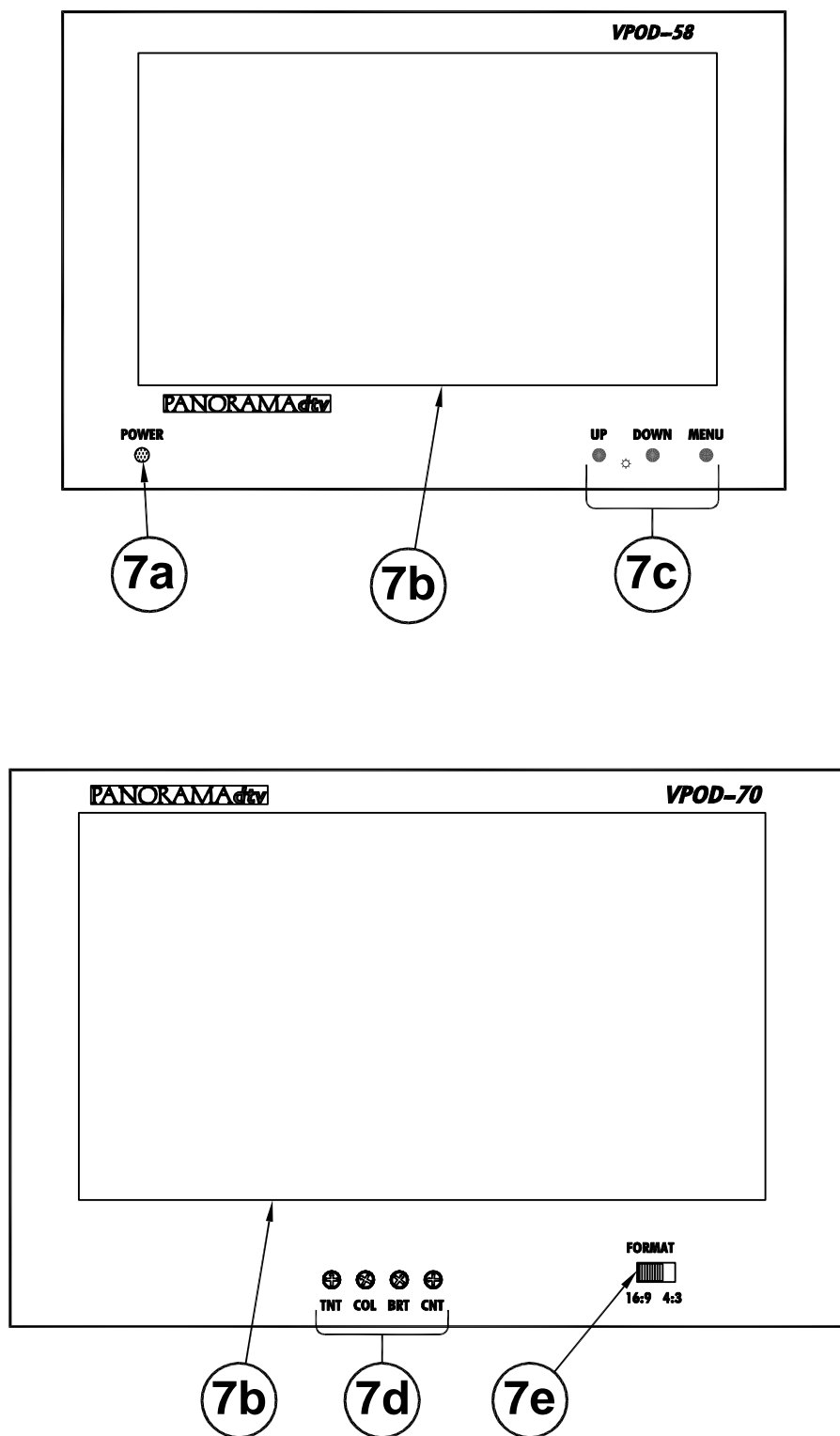
#### 7d 7W (7") LCD Display Controls (7W VPOD only)

The **7W** video display properties may be adjusted using these four trimpot controls:

- **TNT = Tint**; adjust for desired image color hue (NTSC only).
- **COL = Color Saturation**; adjust for desired amount of image color saturation.
- **BRT = Brightness**; adjust for desired screen brightness.
- **CNT = Contrast**; adjust for desired image scene, dark-to-bright contrast.

#### 7e Aspect Ratio (Format) Select Switch (7W VPOD only)

This 2-position slide switch selects the aspect ratio (format) of the respective video source being monitored. Aspect ratios of 4:3 (standard) or 16:9 (wide) are selectable. Inappropriate format selection will result in distortion of the video image as seen on the video display screen.



**Figure-2b: VPOD Module Features**

## Front Panel Features

Display controls for the **5.8" VPOD (VPOD5W)** are set via the three buttons (See **Item 7c**, page **14**) on the **VPOD** front panel. Parameters are manipulated as described below:

### BRIGHTNESS

Press the **UP** and **DOWN** buttons directly to increase and decrease the LCD display **BRIGHTNESS**. The image below will be displayed on-screen while adjusting to indicate the level.



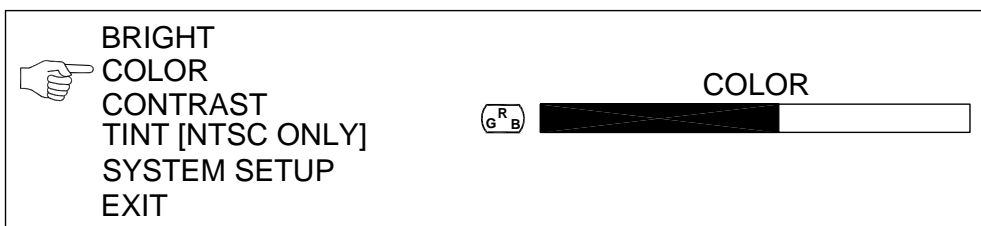
### COLOR / CONTRAST / TINT

- 1) Press the **MENU** button to access the **Main Menu** onscreen.
- 2) Press the **UP** and **DOWN** buttons to *scroll* through the options.
- 3) Press the **MENU** button to *select* the chosen parameter for adjustment.
- 4) Press the **UP** and **DOWN** buttons to *adjust* the level.
- 5) Press the **MENU** button to *return* to the **Main Menu**.
- 6) To *exit* the menu, use the **UP** and **DOWN** buttons to select **EXIT** and then press **MENU**.

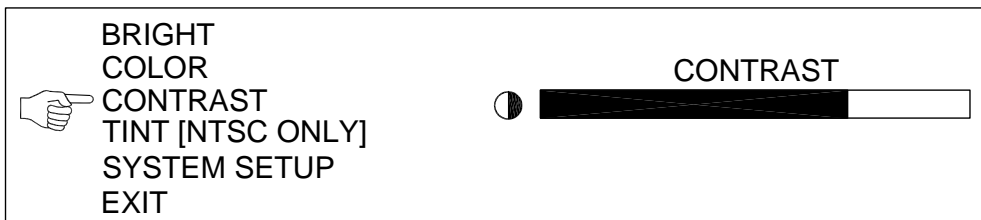
**NOTE:** The **TINT** parameter is applicable **ONLY** when monitoring **NTSC** video source signals.

The onscreen menu and parameters for **COLOR**, **CONTRAST**, and **TINT** controls are shown below:

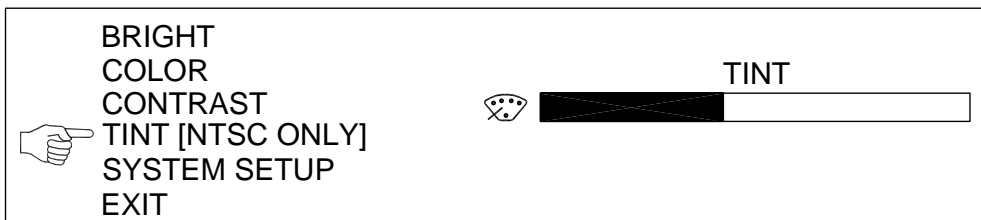
**COLOR**  
**Adjustment:**



**CONTRAST**  
**Adjustment:**



**TINT**  
**Adjustment:**



(Continued)

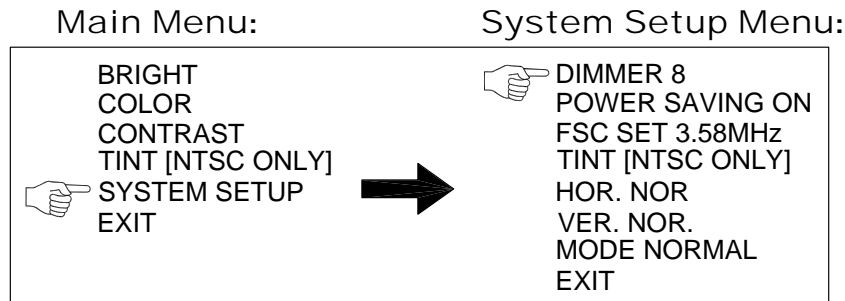


## VPOD5W On-Screen Display Controls

(Continued)

### SYSTEM SETUP

To enter the **System Setup** submenu, choose **SYSTEM SETUP** in the **Main Menu**, and press the **MENU** button.



Use the **UP** and **DOWN** buttons to select **System Setup** option as shown below.



#### DIMMER 8

- 1) Press **MENU** button to select **DIMMER 8** option.
- 2) Press **Up** and **DOWN** buttons to select **Dimmer** level from **0** to **8**.
- 3) Press **MENU** to activate selection.



#### POWER SAVING ON

- 1) Press **MENU** button to select **POWER SAVING ON** option.
- 2) Press **Up** and **DOWN** buttons to select **POWER SAVING ON** or **POWER SAVING OFF**.
- 3) Press **MENU** to activate selection.

When the display is set up with **Power Saving Mode ON**, power will automatically turn off after 6 seconds if there is no video signal entering the display. Power will automatically turn as soon as a video signal is detected.



#### FSC SET 3.5MHz

- 1) Press **MENU** button to select **FSC SET 3.5MHz (Frequency Subcarrier)** option.
- 2) Press **Up** and **DOWN** buttons to select **FSC SET 3.58MHz** or **FSC SET 4.43MHz**.
- 3) Press **MENU** to activate selection.

This option will force the **Frequency Subcarrier** of the display at **3.58MHz** or **4.43 MHz**.



#### HOR. NOR.

- 1) Press **MENU** button to select **HOR. NOR. (Horizontal Reverse Image)** option.
- 2) Press **Up** and **DOWN** buttons to reverse the image *horizontally*.
- 3) Press **MENU** to activate selection.



#### VER. NOR.

- 1) Press **MENU** button to select **VER. NOR. (Vertical Reverse Image)** option.
- 2) Press **Up** and **DOWN** buttons to reverse the image *vertically*.
- 3) Press **MENU** to activate selection.



#### MODE NORMAL

- 1) Press **MENU** button to select **MODE NORMAL** option.
- 2) Press **Up** and **DOWN** buttons to select **NORMAL**, **ZOOM1**, or **FULL**.
- 3) Press **MENU** to activate selection.

**NORMAL** mode will display images in original aspect ratio of source (example: 4:3 ratio displayed undistorted in 16:9 screen with blank space on either side). **ZOOM1** mode zooms into center area of display. **FULL** mode forces aspect ratio of source to conform to 16:9 aspect ratio (example: 4:3 ratio displayed in 16:9 screen stretched [distorted] to fill entire display).



#### EXIT

Press **MENU** button to select **EXIT** option, press **MENU** button again to return to **Main Menu**.

## Rear Panel Features

Please refer to **Figure-2c** on the following page to familiarize yourself with the rear panel features of the **VAMP2-S8MDA Series** unit. The following sections describe these features and are referenced, by letter, to **Figure-2c**.

### A Power Connector

Attach a standard **IEC-320** power cord between this connector and mains power..

### B SDI Input Connectors (SDI IN1 and SDI IN2)

These two BNC connectors (**SDI IN1** and **SDI IN2**) accept both high-definition **HD-SDI** and standard **SD-SDI** audio/video signals. **HD-SDI** signals are automatically down converted to **SD-SDI** for monitoring.

To monitor *video* from these inputs, the **Video Source Select Button** (Item 2, page 10) should be set to **SDI**, the **SDI Input Select Button** (Item 3, page 10) should be set to the **SDI** input of choice (**SDI IN1** or **SDI IN2**), and the **SDI Group Select Button** (Item 9, page 12) should be used to select the two **SDI Group(s)** of choice.

To monitor *audio* (only) from these inputs, the **Audio Source Select Button** (Item 10, page 12) should be set to **SDI**, the **SDI Input Select Button** should be set to the **SDI** input of choice (**SDI IN1** or **SDI IN2**), and the **SDI Group Select Button** should be used to select the **SDI Group(s)** of choice.

### C SDI Loop-Through Output Connector

The selected **SDI** output is down converted for video display by an internal down-converter module. The external connection (BNC cable) from the selected **SDI** output (**SDI OUT**) back into the **SDI** down-converter (**SDI CONV IN**, Item K, page 20) is necessary for monitoring the selected **SDI** video source. Two loop-thru outputs (**SDI LOOP THRU**) are available for the selected **SDI** source. See **Item J** on page 20 for a description of the **SDI LOOP THRU** outputs.

### D CVBS Video (Analog) Input and Loop-Through Connectors (CV1 and CV2)

These BNC connector inputs accept standard **CVBS (Composite Analog)** video signals. There are two **CVBS** input sections (**CV1** and **CV2**) and each section has an input and loop-through on *unbalanced* BNC connectors. See **Item E** for termination settings.

In order to monitor the video from these inputs, the **Video Source Select Button** (Item 2, page 10) must be set to the **CVBS** input *section* of choice (**CV1** or **CV2**).

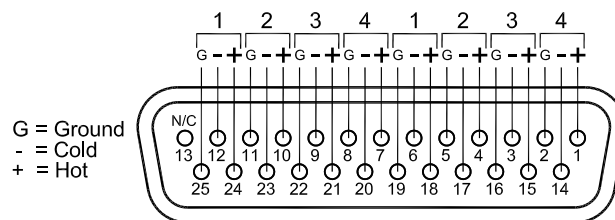
### E CVBS Video (Analog) Input Termination DIP Switch

Termination for the **CVBS (Composite Analog)** input connectors (Item x) is adjustable via the 2-position DIP switch module located between the two **CVBS** input sections (**CV1** and **CV2**). The switch section *nearest* the associated connector is responsible for setting the termination for that connector (**CV1** = *Left*, **CV2** = *Right*).

The switch is moved **DOWN** to **TERMINATE** the connector and **UP** to **UNTERMINATE** the connector.

### F Analog Input Connector

This DB-25 connector accepts standard **Analog** signals and is configured for a balanced connection (110  $\Omega$  impedance). The **Audio Source Button** (Item 10, page 12) must be set to **ANALOG** to select this input for monitoring. See below for pin-out information.



(Continued)

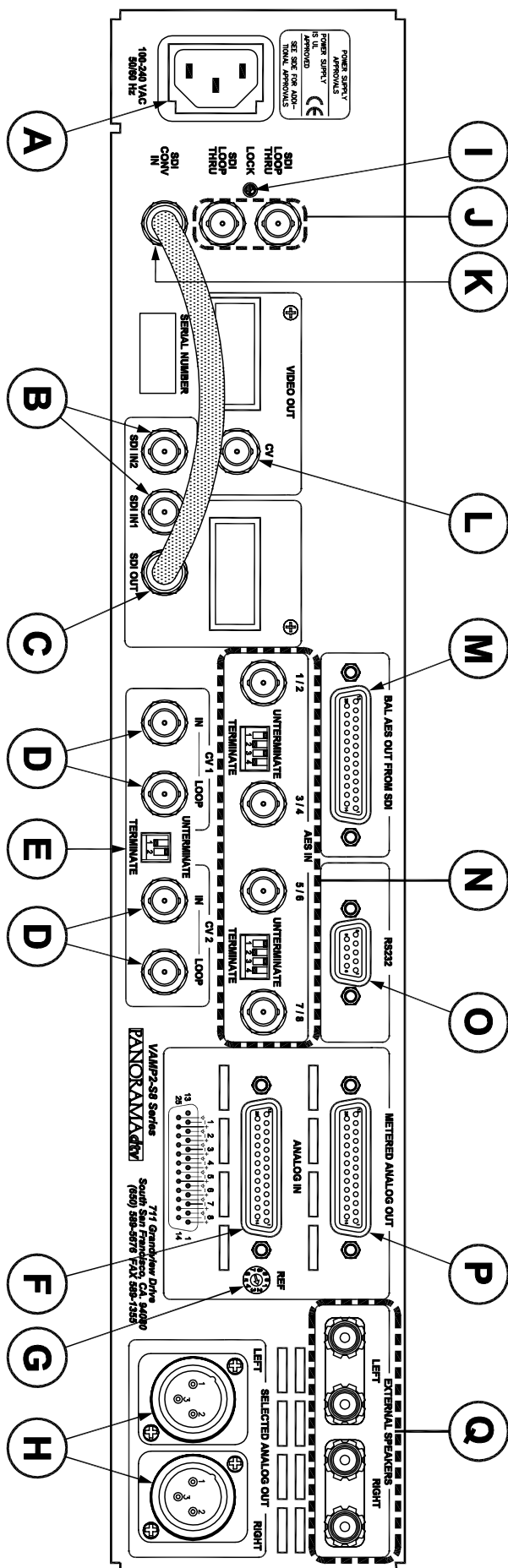


Figure-2c: Rear Panel Features

## Rear Panel Features

(Continued)

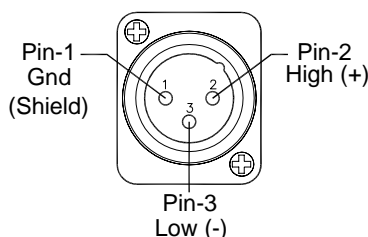
### G Reference Select Rotary Switch

This recessed 10-position rotary switch sets the reference level for the unit. See below for setting information.

Position	Function	
	Analog	Digital
0	+8 dBu	-20 dBFS
1	+4 dBu	-20 dBFS
2	0 dBu	-20 dBFS
3	0 dBu	-18 dBFS
4	+6 dBu	-9 dBFS
5	Not Used	
6	Not Used	
7	Not Used	
8	Software Upgrade	
9	Software Upgrade	

### H Selected Analog output Connectors (Left and Right)

These two male 3-pin XLR connectors are analog outputs of the source as selected for the left and right speaker channels. Output is not affected by the volume and balance controls. See diagram below for pinout information.



### I (HD)SDI Video Down-Converter Lock Indication LED

This LED glows GREEN to indicate a valid **HD-SDI** or **SDI** bitstream is being input to the converter.

### J (HD)SDI Video Down-Converter Loop-Through Output Connectors

These two female BNC connectors output an equalized and buffered copy of the selected **(HD)SDI** input (**Item L**).

### K (HD)SDI Video Down-Converter Input Connector

The selected **SDI** output is down converted for video display by an internal down-converter module. The external connection (BNC cable) from the selected **SDI** output (**SDI OUT**, **Item C**, page 18) back into the **SDI** down-converter (**SDI CONVIN**) is necessary for monitoring the selected **SDI** video source. Two loop-thru outputs (**SDI LOOP THRU**) are available for the selected **SDI** source. See **Item J** for a description of the **SDI LOOP THRU** outputs.

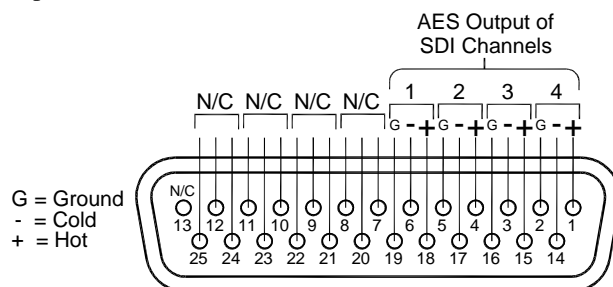
### L Video Out - CVBS (Composite) Connector

This female BNC connector outputs **Composite** video. Selection between **NTSC** and **PAL** is automatic.

It is possible for the unit to generate either composite or independent sync by moving the shorting header on **JP6** (located close to the **composite video out** BNC). From the rear of the unit this jumper will select **composite** when the jumper is connecting the *left* pair of header pins or **independent sync** when the *right* pair are connected.

### M AES Balanced Output (From SDI Input) Connector

This DB-25 connector outputs **AES** signals converted from the selected **SDI** input and is configured for *balanced* connections (110  $\Omega$  impedance). Pinout information for this connector is shown below.



(Continued)

## Rear Panel Features

(Continued)

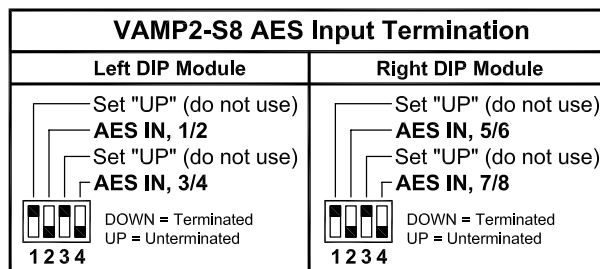
### N AES Unbalanced Input/Loop-Through Connector and Termination DIP

Each of these four female BNC connectors (**1/2**, **3/4**, **5/6**, and **7/8**) accepts standard **AES** audio signals and is configured for *unbalanced* connections (75  $\Omega$  impedance).

These inputs are selected for monitoring by setting the **Audio Source Select Button** (**Item 10**, page **12**) to **AES**.

Termination for all four **AES** inputs (**1/2**, **3/4**, **5/6**, and **7/8**) is adjustable via the two 4-position DIP switch modules located between each of two pairs of input connectors. The switch section nearest the associated connector is responsible for setting the termination for that connector. The appropriate switch is moved **DOWN** to **TERMINATE** the connector and **UP** to **UNTERMINATE** the connector. See diagram below for DIP settings.

Note that sections **1** and **3** of both DIP modules should be left in the UP position and *not used*.



### O RS232 Connector

This DB-9 connector is used for downloading/uploading programming information into and out of the **VAMP2-S8MDA Series** unit.

### P Metered Analog Output Connector

This DB-25 connector outputs the **Analog** signals which are selected for display in the level meters. See diagram under **Item F**, page **18** for pin-out information.

### Q External Speaker Connectors (Left and Right)

Connect external speakers here using these terminal posts. The *left* pair outputs the signals as selected for the *left* speaker, and the *right* pair outputs the signals as selected for the *right* speaker. Terminal posts in each output pair are color coded for polarity; RED is *positive* (left post) and BLACK is *negative* (right post). An external amplifier is not needed to drive the external speakers.

In order to monitor audio through the external speakers, the **Speaker Select Button** on the front panel (**Item 4**, page 10) must be used to select **EXTERNAL** (the LED will glow GREEN).

**NOTE:**

PCB layout and schematic support documentation is available upon request.

**Panorama DTV**  
711 Grandview Drive  
South San Francisco, CA 94080  
650 589-5676 Fax: 650 589-1355  
web: [www.panoramadt.com](http://www.panoramadt.com)  
e-mail: [sales@panoramadt.com](mailto:sales@panoramadt.com)

NOTES:



**Panorama DTV**

711 Grandview Drive  
South San Francisco, CA 94080  
650 589-5676 Fax: 650 589-1355  
web: [www.panoramadv.com](http://www.panoramadv.com)  
e-mail: [sales@panoramadv.com](mailto:sales@panoramadv.com)